



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE JOURNAL OF GEOLOGY

A SEMI-QUARTERLY

EDITED BY

THOMAS C. CHAMBERLIN

With the Active Collaboration of

ROLLIN T. CHAMBERLIN, *Managing Editor*
Dynamic Geology

STUART WELLER, Invertebrate Paleontology
EDSON S. BASTIN, Economic Geology

ALBERT JOHANNSEN, Petrology
J HARLEN BRETZ, Stratigraphic Geology

ASSOCIATE EDITORS

SIR ARCHIBALD GEIKIE, Great Britain
CHARLES BARROIS, France
ALBRECHT PENCK, Germany
HANS REUSCH, Norway
GERARD DEGEER, Sweden
SIR T. W. EDGEWORTH DAVID, Australia
BAILEY WILLIS, Leland Stanford Junior University
CHARLES D. WALCOTT, Smithsonian Institution

*JOHN C. BRANNER, Leland Stanford Junior University
RICHARD A. F. PENROSE, JR., Philadelphia, Pa.
WILLIAM H. HOBBS, University of Michigan
FRANK D. ADAMS, McGill University
CHARLES K. LEITH, University of Wisconsin
WALLACE W. ATWOOD, Clark University
WILLIAM H. EMMONS, University of Minnesota
ARTHUR L. DAY, Carnegie Institution

*Deceased.

OCTOBER-NOVEMBER 1922

THE NEPHELITE SYENITE AND NEPHELITE PORPHYRY OF BEEMERVILLE, NEW JERSEY - - - - -	M. AUROUSSEAU AND HENRY S. WASHINGTON	571
INTRAFORMATIONAL CORRUGATED ROCKS - - - - -	WILLIAM J. MILLER	587
THE PHYSICAL CHEMISTRY OF THE CRYSTALLIZATION AND MAGMATIC DIFFER- ENTIATION OF IGNEOUS ROCKS - - - - -	J. H. L. VOGT	611
EDITORIAL - - - - -	E. S. B.	631
PETROLOGICAL ABSTRACTS AND REVIEWS - - - - -		632
REVIEWS - - - - -		646

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS, U.S.A.

THE CAMBRIDGE UNIVERSITY PRESS, LONDON
THE MARUZEN-KABUSHIKI-KAISHA, TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI
THE MISSION BOOK COMPANY, SHANGHAI

THE JOURNAL OF GEOLOGY

EDITED BY

THOMAS C. CHAMBERLIN

With the Active Collaboration of

ROLLIN T. CHAMBERLIN, *Managing Editor*
Dynamic Geology

STUART WELLER

Invertebrate Paleontology

EDSON S. BASTIN

Economic Geology

ALBERT JOHANNSEN

Petrology

J HARLEN BRETZ

Stratigraphic Geology

The Journal of Geology is published by the University of Chicago at the University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois, semi-quarterly, on or about the following dates: February 1, March 15, May 1, June 15, August 1, September 15, November 1, December 15. ¶ The subscription price is \$4.00 per year; the price of single copies is 65 cents. Orders for service of less than a half-year will be charged at the single-copy rate. ¶ Postage is prepaid by the publishers on all orders from the United States, Mexico, Cuba, Porto Rico, Panama Canal Zone, Republic of Panama, Dominican Republic, El Salvador, Bolivia, Colombia, Honduras, Nicaragua, Peru, Hawaiian Islands, Philippine Islands, Guam, Samoan Islands, Shanghai. ¶ Postage is charged extra as follows: for Canada, 25 cents on annual subscriptions (total \$4.25); on single copies 3 cents (total 68 cents); for all other countries in the Postal Union 50 cents on annual subscriptions (total \$4.50), on single copies 6 cents (total 71 cents). ¶ Patrons are requested to make all remittances payable to The University of Chicago Press in postal or express money orders or bank drafts.

The following are authorized to quote the prices indicated:

For the British Empire: The Cambridge University Press, Fetter Lane, London, E.C. 4. Yearly subscriptions, including postage, £1 5s. each; single copies, including postage, 4s. each.

For Japan and Korea: The Maruzen-Kabushiki-Kaisha, 11 to 16 Nihonbashi Tori Sanchoe, Tokyo, Japan. Yearly subscriptions, including postage, Yen 9.45 each; single copies, including postage, Yen 1.50 each.

For China: The Mission Book Company, 13 North Szechuen Road, Shanghai. Yearly subscriptions \$4.00; single copies 65 cents, or their equivalents in Chinese money. Postage extra, if mailed direct outside of Shanghai, on yearly subscriptions 50 cents, on single copies 6 cents.

Claims for missing numbers should be made within the month following the regular month of publication. The publishers expect to supply missing numbers free only when losses have been sustained in transit, and when the reserve stock will permit.

Business correspondence should be addressed to The University of Chicago Press, Chicago, Ill.

Communications for the editors and manuscripts should be addressed to the Editors of THE JOURNAL OF GEOLOGY, the University of Chicago, Chicago, Ill.

Contributors are requested to write scientific and proper names with particular care and in citations to follow the form shown in the pages of the Journal.

Because of the high cost of printing, this Journal has found it necessary to adopt the following rules: ¶ 1. If articles exceeding 25 pages in length are accepted for publication in the Journal, the cost of composition *beyond 25 pages* shall be paid by the author or by the institution which he represents, at the current rates of the University Press. ¶ 2. The cost of illustrative material, in excess of \$1.00 per page for the article, beyond the cost of type which would have occupied the same space, shall be borne by the author. ¶ 3. The cost of corrections in proof in excess of 10 per cent of the cost of first composition, will be charged to the author. ¶ 4. While the cost of printing remains as now, the Journal cannot supply reprints without charge, but reprints will be furnished authors at cost, if ordered in advance of publication.

Entered as second-class matter, March 20, 1893, at the Post office at Chicago, Ill., under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized on July 15, 1918.

PRINTED IN THE U.S.A.